

***Remarks***

Upon entry of the foregoing amendment, claims 1-4, 7-11, 14-16, 19-23, 26, and 27 are pending in the application, with 1, 8, 15, and 20 being the independent claims. Claims 8 and 15 are sought to be amended. Claims 5, 6, 12, 13, 17, 18, 24, and 25 stand cancelled without prejudice to or disclaimer of the subject matter therein. Applicant reserves the right to prosecute similar or broader claims, with respect to the cancelled and amended claims, in the future.. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendments and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

***Rejection under 35 U.S.C. § 101***

Claims 8-11, 14-16, 19, and 27 were rejected under 35 U.S.C. § 101 as allegedly not falling within one of the four statutory categories of invention. Applicant respectfully traverses this rejection.

The Examiner, on page 2 of the Office Action, states:

While the claims recite a series of steps or acts to be performed, a statutory "process" under U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state to thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled "Clarification of 'Processes' under 35 U.S.C. 101"). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

Applicant respectfully disagrees. It is believed that the claims defined patentable subject matter prior to amendment herein. However, in the interest of expediting prosecution, the claims have been amended to make it even more clear that they define patent eligible subject matter, in view of current statutory and case law.

**Claims 8-11 and 14**

Claim 8 defines *a method for grouping a plurality of carriers in a DMT communication system*. Thus, claim 8 is directed to a method carried out in a very particular machine, i.e. "a DMT communication system".

Claim 8 also recites, among other features, *determining at least one dynamically variable sized carrier group for the plurality of carriers used for communication in the DMT communication system* and *using the plurality of carriergroup parameters to dynamically set up a tone decoder, wherein the plurality of carriergroup parameters comprises a carriergroup gain parameter*. Thus, the body of claim 8 also comprises structural components and systems such as "the DMT communication system" and "a tone decoder". Therefore, claim 8 is patent eligible per *In re Bilski* No. 2007-1130 (Fed. Cir. Oct. 30, 2008).

Claims 9-11 and 14, all of which depend from independent claim 8, are also patentable for reasons similar to those set forth above with respect to independent claim 8, and further in view of their own respective features.

Moreover, dependent claim 14 recites *wherein the at least one message comprising the plurality of carriergroup parameters is used to set up a tone encoder in a far end modem*. Therefore, claim 14 discloses "a tone encoder" and "a far end modem," which are also specific structures.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw this rejection of claims 8-11 and 14.

**Claims 15, 16, 19, and 27**

Claim 15 discloses *a method for grouping a plurality of carriers in a DMT communication system, the DMT communication system comprising a near end and a far end modem, the method comprising:*

*determining at least one dynamically variable sized carriergroup from the plurality of carriers used for communication in the DMT communication system;*  
*determining a carriergroup signal-to-noise ratio for the at least one carriergroup;*  
*determining a carriergroup bitloading and a carriergroup gain for the at least one carriergroup based on the carriergroup signal-to-noise ratio;*  
*using the carriergroup bitloading and the carriergroup gain for the at least one carriergroup for dynamically setting up a tone decoder in the near end modem; and*  
*using the carriergroup bitloading and the carriergroup gain for the at least one carriergroup for transmitting messages from the near end modem to the far end modem.*

Thus, the process set forth in claim 15 is carried out in connection with particular machines, such as, for example, "a DMT communication system". The DMT communication system of claim 15 is further particularized in its recitation of apparatus such as, for example, "a near end modem" and "a far end modem". Further, the body of claim 15 also comprises structural components and systems such as "the DMT communication system", "a tone decoder", and "the near end modem". It should be quite clear from all of these recitations that the claim is patent eligible under *In re Bilski* No. 2007-1130 (Fed. Cir. Oct. 30, 2008).

Claims 16, 19, and 27, all of which depend from independent claim 15, are also patentable for reasons similar to those set forth above with respect to independent claim 15, and further in view of their own respective features.

Moreover, dependent claim 19 discloses that the communication system is "a VDSL system," which is also a structural system. Also, dependent claim 27 recites *wherein the carriergroup bitloading and the carriergroup gain for the at least one carrier group is used*

*to set up a tone encoder in a far end modem.* Therefore, claim 27 discloses "a tone encoder" and "a far end modem," which are also structural components.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw this rejection of claims 15, 16, 19, and 27.

***Allowable Subject Matter***

Applicant expresses appreciation for the indication that claims 1-4, 7, 20-23, and 26 are allowed.

Applicant notes the Examiner's reasons for allowance presented on pages 3 and 4 of the Office Action. Applicant reserves the right to demonstrate claims 1-4, 7, 20-23, and 26 are allowable over the art made of record for further reasons related to any of their recited features. Applicant further contends that reservation of this right does not give rise to any implication regarding whether the Applicant agrees with or acquiesces in the reasoning provided by the Examiner.

***Conclusion***

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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